UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,483	07/18/2002	Bei-Chuan Chen	ASIP0003USA	9691

27765	7590	10/14/2005

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EXAMINER
LOVING, JARIC E

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		10/064,483	CHEN ET AL.
		Examiner	Art Unit	
		Jaric Loving	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>6</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2002*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

The claims being examined in this application are 1-12.

Information Disclosure Statement

1.   The listing of references in the specification is not a proper information disclosure

statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

information submitted for consideration by the Office, and MPEP § 609.04(a) states,

"the list may not be incorporated into the specification but must be submitted in a

separate paper." Therefore, unless the references have been cited by the examiner on

form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-3, 5-8, and 10-12 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chiao, US 6,904,493 in view of Stevens US 2002/0133702.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao in

view of Stevens.

Chiao discloses a software delivery device comprising:

a connection port for connecting the software delivery device to a computer

(abstract, item 14 of figure 2, col.2, lines 57-66);

a microcontroller coupling the connection port for controlling the software delivery device (item 22 of figures 2 and 4, col. 3, lines 7-17); and

a flash memory coupling the microcontroller for storing a software (item 20 of figures 2 and 4, col. 3, lines 7-28);

wherein the microcontroller is so programmed that the software is executable by the computer from the software delivery device (col. 3, lines 7-28).

Chiao teaches all of the claimed elements except Chiao fails to teach that the software delivery device is bootable and that the microcontroller is so programmed that the software is executable by the computer only when the computer is booted up from the software delivery device. Stevens has been cited for teaching that a microcontroller is programmed that the software is executable by the computer only when the computer is booted up from the software delivery device (paragraphs [0042] – [0051]). Stevens uses any nonvolatile storage device and uses a dispatch manager that boots up the computer allowing access to software on the nonvolatile storage device (paragraph [0053]).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to recognize that it is advantageous for the software delivery device of Chiao to be bootable and have the microcontroller programmed so that software is executable by the computer only when the computer is booted up from the software delivery device. It is for this reason that one of ordinary skill in the art would have been motivated to enable Chiao's flash memory storage device to be bootable

because it would not only protect the software on the device during normal system operations, but during the boot process.

In claim 2, Chiao, as modified, discloses the software delivery device of claim 1 wherein the microcontroller prevents copying of the software from the flash memory of the software delivery device (col. 3, lines 22-31, col. 4, lines 6-20 and lines 31-42).

Chiao discloses two embodiments where a predetermined pass code is on the microcontroller and the security program, like applicant's authentication program, is either in the flash memory or the microcontroller. In both cases, the pass code together with the security program prevent access to the data in the flash memory unless the pass code is verified, but both the pass code and security program can be modified by the user.

In claim 3, Chiao, as modified, discloses the software delivery device of claim 1 wherein the connection port is an integrated drive electronics (IDE) port (col. 2, lines 58-61).

In claim 5, Chiao, as modified, discloses the software delivery device of claim 1 wherein the connection port is a universal serial bus (USB) port (col. 2, lines 58-61).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao in view of Stevens.

Chiao discloses a software delivery device comprising:

a connection port for electrically connecting the software delivery device to a computer (abstract, item 14 of figure 2, col.2, lines 57-66);

a microcontroller, electrically connected to the connection port, in which an authentication program is installed (item 22 of figures 2 and 4, col. 3, lines 7-27 and col. 4, lines 31-42);

a flash memory electrically connected to the microcontroller (item 20 of figures 2 and 4, col. 3, lines 7-28); and

a private program stored in the flash memory (col. 3, lines 19-23).

Chiao teaches all of the claimed elements except Chiao fails to teach the authentication program is installed on the microcontroller for booting the computer from the software delivery device, the flash memory comprising a boot sector for booting the computer in accordance with the authentication program, and a private program being executable by the computer only after booting from the boot sector and the authentication program instructs the microcontroller to return a virtual boot sector. Stevens has been cited or teaching an authentication program on a microcontroller for booting the computer from the software delivery device (paragraphs [0042] – [0051] and [0058] – [0061]). Although the process discussed by Stevens applies to a computer itself, a microcontroller is itself a computer and the functions performed are no different. Thus, the BIOS functions similar to applicant's authentication program for booting the computer from the software delivery device, which in Steven's case is any nonvolatile storage device. Stevens teaches the flash memory comprising a boot sector for booting the computer in accordance with the authentication program (paragraphs [0042] – [0046]). Stevens teaches a private program being executable by the computer only after booting from the boot sector and the authentication program instructs the

microcontroller to return a virtual boot sector (paragraphs [0050] – [0051] and [0058] –

[0061]). Stevens discusses a fail-safe boot in paragraph [0051] that boots from a

different drive, which is similar to applicant's virtual boot sector and would only arise

from commands in the BIOS.

Once again, one of ordinary skill in the art at the time of applicant's invention

would have recognized that it is advantageous for the software delivery device of Chiao

to be bootable.

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to recognize that it is advantageous for the software delivery

device of Chiao to be bootable and have the microcontroller programmed so that

software is executable by the computer only when the computer is booted up from the

software delivery device. It is for this reason that one of ordinary skill in the art would

have been motivated to enable Chiao's flash memory storage device to be bootable

because it would not only protect the software on the device during normal system

operations, but during the boot process.

In claim 7, Chiao, as modified, discloses the software delivery device of claim 6

wherein the microcontroller prevents copying of the private program from the flash

memory of the software delivery device (col. 3, lines 22-31 and col. 4, lines 6-20).

In claim 8, Chiao, as modified, discloses the software delivery device of claim 6

wherein the connection port is an integrated drive electronics (IDE) port (col. 2, lines 58-

61).

In claim 10, Chiao, as modified, discloses the software delivery device of claim 6 wherein the connection port is a universal serial bus (USB) port (col. 2, lines 58-61).

In claim 11, Chiao, as modified, discloses the software delivery device of claim 6 wherein the authentication program is stored in a read only memory of the microcontroller (col. 3, lines 9-12 and lines 22-31).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao in view of Stevens.

Chiao, as modified, discloses a method for protecting a software, the method comprising: providing a device for delivering the software, the device comprising a flash memory for storing the software, a connection port for connecting to a computer, and a microcontroller for executing the software with the computer via the connection port; and programming the microcontroller in such a way that the software is executable by the computer only from the device (abstract, figures 2 and 4, col. 2, line 56 – col. 4, line 30).

Chiao teaches all of the claimed elements except Chiao fails to teach that the software delivery device is bootable and that the microcontroller is so programmed that the software is executable by the computer only when the computer is booted up from the software delivery device. Stevens has been cited for teaching that a microcontroller is programmed that the software is executable by the computer only when the computer is booted up from the software delivery device (paragraphs [0042] – [0051]). Stevens uses any nonvolatile storage device and uses a dispatch manager that boots up the

computer allowing access to software on the nonvolatile storage device (paragraph [0053]).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to recognize that it is advantageous for the software delivery device of Chiao to be bootable and have the microcontroller programmed so that software is executable by the computer only when the computer is booted up from the software delivery device. It is for this reason that one of ordinary skill in the art would have been motivated to enable Chiao's flash memory storage device to be bootable because it would not only protect the software on the device during normal system operations, but during the boot process.

Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao and Stevens, further in view of Frank, Jr., US 6,546,489 and Newton's Telecom Dictionary.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao and Stevens, further in view of Frank, Jr. and Newton's Telecom Dictionary.

Chiao, as modified, fails to teach the software delivery device where the connection port is a small computer system interface (SCSI) port, but mentions it could be any other typical computer interface port (col. 2, lines 58-61). Frank, Jr. teaches securely booting a host computer from a disk where the interface between a computer and disk drive can be either IDE or SCSI (col. 4, lines 29-33). One of ordinary skill in the art at the time of applicant's invention would have recognized that SCSI is a standard interfacing means for a microprocessor to communicate with other devices

within a computing network. Newton's Telecom Dictionary defines a SCSI as a standard bus interfacing means where its advantages are its fast data transfer rate and ability to daisy chain up to seven different devices off of one connection (Newton's Telecom Dictionary, p.632, lines 20-25).

Therefore, one of ordinary skill in the art would have been motivated to provide a SCSI connection port based on its inherent performance and function characteristics (col. 4, lines 33-36), such as the fast data transfer rate and the ability to daisy chain up to seven different devices (Newton's Telecom Dictionary, p.632, lines 20-25).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao and Stevens, further in view of Frank, Jr. and Newton's Telecom Dictionary.

Chiao, as modified, fails to teach the software delivery device where the connection port is a small computer system interface (SCSI) port, but mentions it could be any other typical computer interface port (col. 2, lines 58-61). Frank, Jr. teaches securely booting a host computer from a disk where the interface between a computer and disk drive can be either IDE or SCSI (col. 4, lines 29-33). One of ordinary skill in the art at the time of applicant's invention would have recognized that SCSI is a standard interfacing means for a microprocessor to communicate with other devices within a computing network. Newton's Telecom Dictionary defines a SCSI as a standard bus interfacing means where its advantages are its fast data transfer rate and ability to daisy chain up to seven different devices off of one connection (Newton's Telecom Dictionary, p.632, lines 20-25).

Therefore, one of ordinary skill in the art would have been motivated to provide a

SCSI connection port based on its inherent performance and function characteristics

(col. 4, lines 33-36), such as the fast data transfer rate and the ability to daisy chain up

to seven different devices (Newton's Telecom Dictionary, p.632, lines 20-25).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure: Curran, US 4,525,599; Bakhoum, US 5,267,311; Ostrover, US

5,450,489; Schossow, US 5,467,396; Junya, US 5,860,094; Davis, US 6,401,208;

Mattison, US 6,615,355; Lee, US PGPUB 2002/0174353; Cromer, and US PGPUB

2003/0204754.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jaric Loving whose telephone number is (571) 272-

1686. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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Business Center (EBC) at 866-217-9197 (toll-free).

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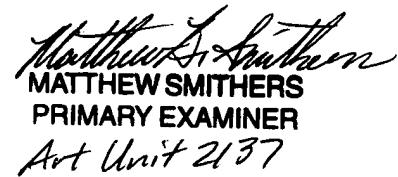
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